

**REMARKS**

**INTRODUCTION**

In the Office Action, the Examiner notes that claims 1-27 are pending in the application. By this Response, no claims have been added; no claims have been amended; and no claim has been canceled. Thus, claims 1-27 are now pending in the application.

**DRAWINGS**

The drawings were objected to under 37 CFR 1.83(a) for not showing the summing in claim 2, line 2.

It is respectfully submitted that the claimed summing is shown by way of example in Step S120 of FIG. 8. Step S120 includes the phrase "Encode input data by adding delayed versions of  $x(t)$  to  $x(t)$ ". Applicant is unaware of any difference between summing and adding.

Accordingly, it is believed that the objection to the drawings cannot properly be maintained. Reconsideration and withdrawal of the objection are respectfully requested.

**SPECIFICATION**

The specification was objected to for including an abstract over 150 words.

Per the instant amendment, the abstract has been appropriately amended to include less than or equal to 150 words. Accordingly, it is believed that the objection to the specification cannot properly be maintained. Reconsideration and withdrawal of the objection are respectfully requested.

**CLAIM REJECTIONS – 35 U.S.C. § 102 and 35 U.S.C. § 103**

Claims 1-3, 5, 9-11, 13, 17, and 20 were rejected under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 4,942,467 to Waldman et al.

Claims 4, 6-8, 12, 14-16, 18, 21, 23-25, and 27 were rejected under 35 U.S.C. § 103 as being unpatentable over Waldman et al. in view of U.S. Patent Application No. 2002/0034191 to Shattil et al.

Waldman et al. and Shattil et al. suffer from at least two flaws. First, neither teaches or suggests use of "a first signal having a positive entropy" and "a plurality of delayed versions of the first signal," and each delayed version comprising "a plurality of available values" for example, in combination with other recitations found in claims 1, 9, 17, 20, and 24, respectively. Waldman et al. teaches away from the instant invention to the extent that it discloses use of fixed delay values to reduce the entropy of a transmitted signal for compression. For example, Waldman et al. discloses fixed delay values of one pixel, such as one horizontal line minus one pixel, or one frame minus one horizontal line. Shattil et al. fails to overcome this flaw. In contrast, the instant invention uses delay values chosen from delayed versions of a first signal having a positive entropy to produce a transmittable signal.

Second, neither teaches or suggests "encoding data comprising a symbol by representing the symbol as a plurality of delay values, wherein each of said plurality of delay values comprises an available value of the plurality of available values for each delayed version of the plurality of delayed versions" in combination with other recitations found in claims 1, 9, 17, 20, and 24, respectively. No such symbol encoding is found in either Waldman et al. or Shattil et al. Waldman et al. only uses a fixed delay value in a comparison between a predicted signal value and an actual signal value for the purpose of reducing the dynamic range of the signal to be encoded. That is, the fixed delay value plays no part in actually encoding the signal, but is rather

used to reduce the number of bits needed to encode the signal. As such, because Waldman et al.'s fixed delay value carries no signal information, no symbol encoding is performed using the delay values, as in the instant invention. To illustrate this, consider FIG. 5 of Waldman et al., wherein a fixed set of three delays based on signal parameters, such as scanning rate and frame rate, are used to reduce the entropy of the signal to be transmitted. Waldman et al.'s delays never change unless the scanning rate and the frame rate changes: the delays convey no signal value information. Shattil et al. fails to overcome this flaw.

Dependent claims of base claims 1, 9, 17, 20, and 24 benefit from the arguments above. By way of example, with respect to claim 2, which depends from base claim 1, Waldman et al. fails to decode "the encoded data by identifying each transmitted, delayed version of the plurality of delayed versions of the first signal." Rather, Waldman et al.'s delays are used to compare predicted signal values with received signal values to reconstruct a compressed signal. The delays themselves do not convey signal value information.

Accordingly, it is believed that the rejection of claims 1-3, 5, 9-11, 13, 17, and 20 under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 4,942,467 to Waldman et al., and the rejection of claims 4, 6-8, 12, 14-16, 18, 21, 23-25, and 27 under 35 U.S.C. § 103 as being unpatentable over Waldman et al. in view of U.S. Patent Application No. 2002/0034191 to Shattil et al. cannot properly be maintained. Reconsideration and withdrawal of the rejections are respectfully requested.

## CONCLUSION

In view of the present Response and the foregoing remarks, therefore, it is believed that this application has been placed in condition for allowance. Reconsideration and allowance are accordingly respectfully requested.

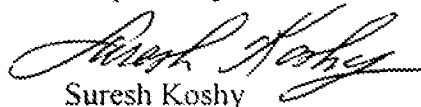
In the event that there are any questions relating to this response or to the application in general, it would be appreciated if the Examiner would telephone the preparing attorney concerning such questions so that the prosecution of this application may be expedited.

#### AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this Response, or credit any overpayment to deposit account no. 50-0281.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to deposit account no. 50-0281.

Respectfully submitted,



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